

Regional Bobwhite Quail and Cottontail Rabbit Survey 2001

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Abstract

The number of male bobwhite quail heard whistling per stop decreased from 0.11 in 1999 to 0.06 in 2001. The number of cottontail rabbits seen while running the quail survey increased from 1999 levels (0.21 vs. 0.22 in 2001).

Methods

Department personnel run roadside surveys along predetermined transects in 15 counties across Wisconsin's primary bobwhite quail range. The surveys take place between 15 June and 5 July beginning at sunrise on mornings with less than 40% cloud cover and winds less than 5mph. Surveyors make 20 stops approximately one mile apart and record the number of whistling males heard during a two-minute period. The number of cottontail rabbits seen while running the transect is also recorded. The data are entered into the DNRVAX computer and analyzed using the Statistical Analysis System (SAS).

Results

Whistling bobwhite quail routes have been conducted in Wisconsin's primary quail range (Figure 1) since the summer of 1949. The number of routes run in 2001 increased from 1999 levels (18 vs. 17). The number of whistling males per stop decreased from 0.11 in 1999 to 0.06 in 2001 (Figure 2.). The number of whistling males per stop remained well below the long-term average (0.59).

Surveyors are also instructed to record all cotton tail rabbits seen on the survey route. The numbers of cottontail rabbits seen per transect increased from 4.3 in 1999 to 4.5 in 2001.

The number of quail heard per stop has shown an inversely proportional relationship with the severity of winter. An index to measure the severity of the winter (WSI) has been developed, using minimum monthly temperatures and daily snow cover for the November through March period. The severity of the winter has shown to account for 58% of the annual variability in the number of whistling males heard per stop.

The Winter Severity Index (WSI) for 1999-00 was 651, well below the long-term average (1984-00) of 890. While January 2000 accounted for 48% of the total WSI during the winter of 1999-00, this was not atypical. The continued declines of bobwhite in Wisconsin and nation-wide reflect factors beyond winter conditions. Such causative factors are thought to include habitat deterioration, predation, and possibly pesticides. The future of this sassy little game bird in Wisconsin is in question. Its population will no doubt remain at some level, but certainly not anything like those of yesteryear.

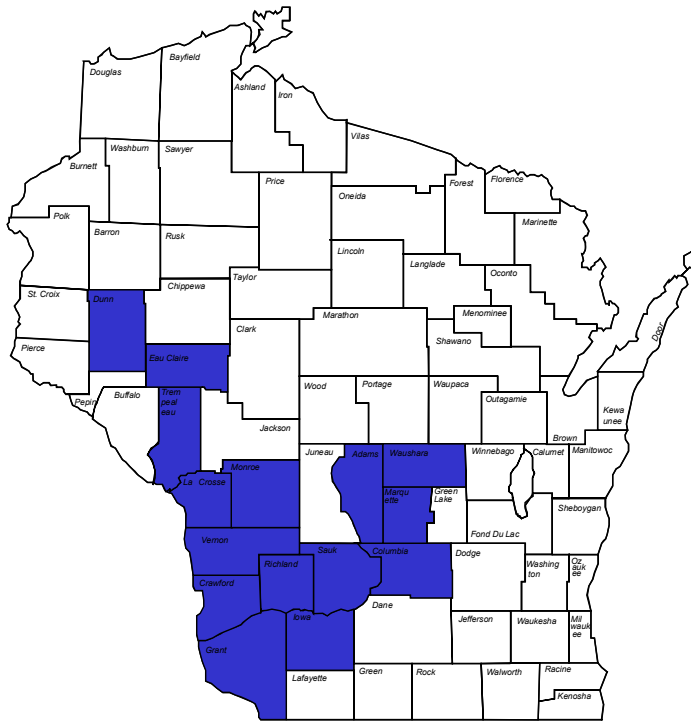


Figure 1. Shaded counties comprise Wisconsin's primary bobwhite quail range.

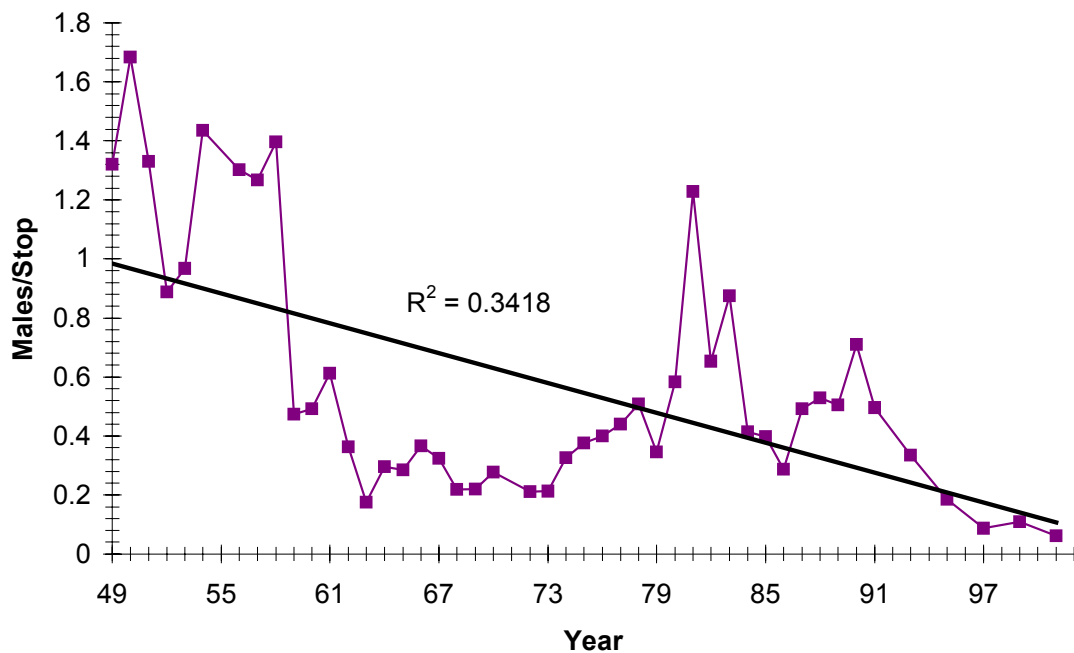


Figure 2. Mean number of whistling males heard per stop 1949-2001.